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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/828,531

04/14/2004

M. Zouhair Atassi

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EXAMINER

SAUNDERS, DAVID A

ART UNIT

PAPER NUMBER

1644

MAIL DATE

DELIVERY MODE

07/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/828,531

Applicant(s)

ATASSI ET AL.

Examiner

David A. Saunders

Art Unit

1644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-26 is/are pending in the application.
- 4a) Of the above claim(s) 22-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2007 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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AMENDMENT ENTRY

Amendment of 4/18/07 has been entered. Claims 1-17 and 19-26 are pending. Claims 1-17 and 19-21 are under examination.

OBJECTION(S)/REJECTION(S) OF RECORD WITHDRAWN

The objection to Figure 1.

The objection to claim(s) 14 under 37 CFR 1.75.

The objection to claim(s) 20 under 37 CFR 1.75.

The rejection of claim(s) 13-14 under 35 USC 112, 2nd paragraph, for recitation of "corresponding to".

The rejection of claim(s) 6-7 and 18-19 under 35 USC 112, 2nd paragraph, for being incomplete.

The rejection of claim(s) 6, 11-13 and 21 under 35 USC 112, 2nd paragraph for recitation of "urokinase zymogen".

The rejection of claim(s) 6-7 and 14 under 35 USC 112, 2nd paragraph for recitation of "used to derive". The examiner concurs that claim 18, rather than claim 14, was intended to be rejected on this basis.

The rejection of claim(s) 14 under 35 USC 112, 2nd paragraph for recitation of "a peptide directed against each of a set of peptides".

The rejection of claim(s) 18 under 35 USC 112, 2nd paragraph, due to its cancellation.

The rejection of claim(s) 9, 13, 14 and 20 under 35 USC 112, 1st paragraph for lack of enablement in the case in which the immunological composition is a hybridoma.

The rejection of claim(s) 1-21 under 35 USC 112, 1st paragraph for lack of description of the genus of immunological compositions.

The rejection of claim(s) 13-14 and dependent claims 15-17 and 19-20 under 35 USC 112, 1st paragraph for lack of description of the peptides "corresponding to" recited sequences.

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The rejection of claim(s) 13-14 and dependent claims 15-17 and 19-20 under 35 USC 112, 1st paragraph for lack of enablement for the peptides "corresponding to" recited sequences.

REJECTIONS MAINTAINED UNDER 35 USC 112, SECOND PARAGRAPH

Claims 1-17 and 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In each of claims 1-4, 6-8, 11-12 and 21 all recitations of a "peptide corresponding to a sequence" or of "corresponds to" are indefinite because these phrases are not art recognized and because what applicant considers these terms to mean, as defined at specification para. [0030]-[0032], is not limited in scope. Thus the meets and bounds of the claims are unclear.

Claims 1, 11-14 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: Claim 1 is incomplete because it concludes with the step of "determining the quantity of each of said at least one immunological composition..." and then does not relate how each of the determinations is used for "determining total urokinase concentration" as stated at the start of the concluding para. Like consideration applies to the conclusion of claim 14. In a similar manner, there is no conclusion to the three "determining" steps of claims 11-13 and 21 that relates how each of the determinations is used to for "determining total urokinase concentration". There is no step of adding, subtracting, or comparing, etc.

In claims 11-13 and 21, recitations of "determining the amount" in the last three para. are not consistent with the recitation in the preceding para., of a "quantity" rather than an "amount".

Regarding the recitations of a "peptide corresponding to a sequence" or of "corresponds to", applicant has urged that the definition set forth in the amended

specification renders the claim language clear. This argument is unconvincing because what specification para. [0030]-[0032] set forth, is not limited in scope. This argument is not convincing because spec. para. [0032] indicates, "In general, although these are not the only such substitutions, the preferred substitutions...". Thus, the amended specification sets forth a definition of "corresponding to" which is not limited in scope and fails to set forth the metes and bounds of applicant's invention.

Applicant has further urged that substitutions in the peptide sequences may be made, based upon the hydropathic index values of the amino acid being substituted and its replacement. Applicant's urgings about substitutions in the peptide sequences being based upon the hydropathic index values of the amino acid being substituted and its replacement are not convincing, because para. [0030]-[0031] fail to define how many such substitutions are to be made within a peptide. While the teachings seem to refer to one substitution, there is nothing that actually limits the scope of the teachings to only one.

Regarding claims 1, 11-14 and 21, which are rejected as being incomplete for omitting essential structural cooperative relationships of elements, the examiner considers that the amended claims are more obscure than they were when originally filed. By introducing de facto Markush group at lines 3-9 and by introducing numerous recitations of "at least one", applicant has confused the nature of the invention. Specifically, claim 1, line 3 now introduces a Markush group of 3 peptides (set forth at lines 4, 6, and 8), as well as of any combination thereof (line 10). Since applicant has introduced the word "or" at line 9, the claim is properly read as a Markush Group, from which any one of the 3 peptides can be selected alone, or from which any combination can be selected. The "immunological composition" of line 11 could thus be directed against any one of these possibilities. Given that the claims encompass the use of only one of the 3 peptides and thus only one "immunological composition" directed there against, it is not clear how the "determining" of the "total urokinase concentration" in said sample is accomplished, when one determines the quantity of only one "immunological composition" directed against one of the 3 peptides.

In claims 11 and 12, numerous recitations of "which binds to" are not consistent with the concluding para. base claim 1 which recites "which is bound to" rather than "which binds to". Applicant has not addressed this basis of rejection.

In claims 13 and 21, recitations of "which binds to" in the last three para. are not consistent with the preceding para., which recites "which is bound to" rather than "which binds to". Applicant has not addressed this basis of rejection.

In claims 11-13 and 21, recitations of "determining the amount" are maintained as indefinite. Though applicant has urged that determining a "quantity" refers to the quantity of "immunological composition" and determining an "amount" refers to the amount of each urokinase form, the urgings are not convincing. Since the "amount" of each urokinase form is determined by a binding reaction with each of the immunological compositions, and since the "quantity" of each immunological composition determined is that which participates in the same binding reaction, it is considered that consistent language is required.

Applicant's arguments filed 4/18/07 have been fully considered but they are not persuasive for above reasons.

REJECTIONS MAINTAINED UNDER 35 USC 112, FIRST PARAGRAPH

Claims 1-12 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant was not in possession of any "peptide corresponding to" or of any peptide that "corresponds to" any of the sequences recited in each of claims 1-4, 6-8, 11-12 and 21. If a "peptide corresponding to" would encompass more than the recited sequence per se (e.g. if it would encompass homologous sequences), then applicant has not described the full genus of peptides encompassed. Except for the very narrow considerations of what substitutions would be entered in the peptides, as set forth in para. [0020] applicant has not described the

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structural features of the members of the broader genus. Applicant was not in possession of the full genus of amino acid sequences which would be "homologous" (an art-accepted term) or "chiefly derived" (not an art accepted term, which is recited by applicant in para. [0020]) to each of the recited segments of SEQ ID NO:16 and SEQ ID NOS:1-14 which are sub-segments thereof. Since the substitution of a single amino acid within any given parent polypeptide sequence can abolish the binding of an antibody thereto (Lederman et al, Molec. Immunol. 28, 1171-1181, 1991), the use of an antibody directed to a variant sequence that is non-identical to that of any of the disclosed SEQ ID NOS could result in the use of an antibody which lacks any binding specificity for urokinase. Not only could such an antibody lack binding specificity for urokinase, such an antibody could also show a cross reactivity for serine protease proteins which are homologous to urokinase; the assay for total urokinase would thereby give false-positive results.

Applicant has not disclosed what substitutions within any one of the disclosed SEQ ID NOS constitute those which characterize urokinase, as opposed to homologous proteins; and applicant has not given any direction as to which substitutions can be placed within any SEQ ID NO such that an antibody reactive therewith can retain specificity for urokinase. The particularly disclosed sequences of SEQ ID NOS: 1-14 and 16 are thus not representative of the genus of peptides which can induce the production of antibodies with specificity for ("directed against") urokinase. The only members of the genus which have been described are the particularly recited SEQ ID NOS. See Univ. of Calif. V. Eli Lilly 43 USPQ2d 1398.

Claims 1-12 and 21 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the use of antibodies specific for the particularly recited SEQ ID NOS, does not reasonably provide enablement for the use of antibodies specific for the full genus of peptides which be those "corresponding to" the recited SEQ ID NOS. (assuming that "corresponding to" would be encompass terms such as "homologous" (an art accepted term) or "chiefly derived" (not an art accepted term)). The specification does not enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. As noted supra under description, the members of the genus of peptides which be those "corresponding to" the recited SEQ ID NOS is large, and the state of the art is such that there has been no identification of the structural features of the peptides which, upon immunization, will generate antibodies specific for urokinase. Therefore the experimentation required to produce the antibodies which would be operative in detecting urokinase would be undue. This fact situation does not parallel that of *In re Wands* 8USPQ2d 1400. Instantly, one would need to immunize a different host animal with each of the peptides encompassed by the genus and then characterize the antibodies produced by each animal. On the other hand, in *Wands* one animal had already been immunized, and the experimentation merely required the identification of particular hybridoma cell cultures derived from B-cells of the immunized animal. Given the large number of permutations that could be obtained by substituting an unspecified number of amino acid residues, within each of the recited SEQ ID NOS., it would not be practical for one to immunize all of the animals that would need to be immunized, let alone to conduct the experimental work necessary to characterize the antiserum produced by each of the animals.

The above rejections of Claims 1-12 and 21 under 35 USC 112, first para. have been maintained for failing to meet both the written description requirement and the enablement requirement. Regarding the recitations of a "peptide corresponding to a sequence" or of "corresponds to", applicant has urged that the definition set forth in the amended specification has overcome. Applicant has further urged that substitutions in the peptide sequences may be made, based upon the hydropathic index values of the amino acid being substituted and its replacement.

These arguments are unconvincing because what specification para. [0030]-[0032] set forth, is not limited in scope; spec. para. [0032] indicates, "In general, although these are not the only such substitutions, the preferred substitutions...". Thus, the amended specification sets forth a definition of "corresponding to" which is not limited in scope and fails limit the peptides "corresponding to" those taught as being

limited to those peptide sequences which are based upon considerations of the hydropathic index values of the amino acid being substituted and its replacement. The phrase "corresponding to" still encompasses numerous other kinds of modifications, such as deletions and insertions, which have not been contemplated by applicant in para. [0030]-[0032] and for which there is lack of any guidance.

Further, even if the claim language were limited to the extent that only substitutions that conserve the hydropathic index values of the amino acid being substituted and its replacement, there would still be a lack of written description and enablement; this is because substitutions that conserve the hydropathic index values of the amino acid being substituted and its replacement are precisely the kinds of substitutions that can occur in homologues of urokinase, and it has been taught by applicant that the affinities of the immunological compositions for peptides having the recited sequences must be "substantially higher" than their affinities for homologues of other species.

Further, even if the claim language were limited to the extent that only substitutions that conserve the hydropathic index values of the amino acid being substituted and its replacement, there would still be a lack of enablement, since applicant has taught in para. [0031] that one "might obtain a peptide having similar biological activity". As previously noted, the experimentation required to produce the antibodies which would be operative in detecting urokinase would be undue. This is because one would need to immunize a different host animal with each of the peptides encompassed by the genus and then characterize the antibodies produced by each animal.

Applicant's arguments filed 4/18/07 have been fully considered but they are not persuasive for above reasons.

Applicant's amendment has necessitated the following new ground(s) of rejection.

NEW REJECTION(S) UNDER 35 USC 112, SECOND PARAGRAPH

Claims 5 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, lines 2-3, "from which it is directed against" is unclear. It is suggested that applicant, instead, recite --against which it is directed--.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: in Claim 12 there is no indication as to how the further use of a "fourth peptide corresponding SEQ ID NO: 17" provides an immunological composition that is used in any of the steps following recitation of "comprised of the following steps (line 5 of claim 12).

NEW REJECTION(S) UNDER 35 USC 112, FIRST PARAGRAPH

Claims 1-17 and 19-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contain new matter.

The listing of the 3 peptides in each of claims 1, 13-14, 21 is now introduced with the phrase ".... at least one peptide comprised of ". By use of the language "comprised of", applicant has opened the scope of the listed peptides to those having additional amino acid residues added to either or both of the N- and/or C-terminal.

Claims 1-17 and 19-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject

matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contain new matter.

By introducing a de facto Markush group at lines 3-9 of claim 1 and by introducing numerous recitations of "at least one", applicant has improperly broadened the scope of the invention. Specifically, claim 1, line 3 now introduces a Markush group of 3 peptides (set forth at lines 4, 6, and 8), as well as of any combination thereof (line 10). Since applicant has introduced the word "or" at line 9, the claim is properly read as a Markush Group, from which any one of the three peptides can be selected alone, or from which any combination can be selected. The "immunological composition" of line 11 could thus be directed against any one of these possibilities. Given that the claims encompass the use of only one of the 3 peptides and thus only one "immunological composition" directed there against, applicant has greatly expanded the number of possible embodiments, in terms of the number of immunological compositions that are used in the method (for example, dependent claim 6 could be properly read as encompassing a method in which the only "immunological composition" used is one directed against a peptide corresponding to SEQ ID NO: 14). Previously, the claim encompassed only the use of 3 different immunological compositions, each immunological composition being directed against a different one of the 3 peptides.

Additionally, claim 1 is considered to recite new matter because the claim previously required one to obtain each of the 3 different peptides (i.e. to obtain 3 peptide compositions. Presently claim 1 would permit one to obtain only 1 peptide, which could be embodied as 1) just one of the 3 listed, 2) any 2 of the 3 peptides fused together as one peptide, or 3) all 3 of the peptides fused together as one peptide. This results from the fact that claim 1, line 3 now recites "at least one peptide comprised of" and thus one peptide can be comprised of any 1, 2, or 3 of the listed peptides. Applicant's amendment has thus clearly expanded the scope of the number and nature of the peptides that are to be used in the claimed method.

Like considerations apply to the method of claim 13, to the kit of claim 14, and to the kit of claim 21, as well as to all claims depending from claim 1 or 14.

Claims 1-17 and 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contain new matter.

In addition to the above noted new matter issues concerning the peptide(s) encompassed by the Markush group of claim 1, applicant has introduced new matter at line 11 by reciting "at least one immunological composition directed against each...peptide". Previously, the claim encompassed only the use of 3 different immunological compositions, each immunological composition being directed against a different one of the 3 peptides. Now the claim encompasses the use of more than one immunological composition direct against each peptide. Again the claim scope has been improperly expanded.

Like considerations apply to the method of claim 13 and to the kits of claim 14, and to all claims depending from claim 1 or 14.

Claims 9 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contain new matter by virtue of reciting "or any combination". The concept of using "any combination" of immunological compositions was not conveyed in the original disclosure.

Claims 11-13 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contain new matter.

Specifically, applicant has formatted everything recited after “comprised of the following steps” (e.g. line 4 of claim 11) as a Markush group of 3 alternatives, because applicant has introduced “or” (e.g. at the end of line 20 of claim 11). Applicant’s claimed method thus previously required that one conduct all 3 steps, not just any 1 of them. Further, by introducing the recitation of “any combination” (last line of each claim), applicant has introduced new matter, since applicant’s claimed method thus previously required that one conduct all 3 steps, not just any 2 of them.

Claims 1-17 and 19-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims lack enablement for “determining total urokinase concentration in a sample”.

Also, as noted supra regarding new matter, the listing of the 3 peptides in each of claims 1, 13-14, 21 is now introduced with the phrase “.... at least one peptide comprised of”. By use of the language “comprised of”, applicant has opened the scope of each of the listed peptides to those having additional amino acid residues added to either or both of the N- and/or C-terminal. Such additions would encompass peptides constituted of the whole 411 amino acids of uPA. Applicant’s disclosure has clearly indicated that the use of only an immunological composition (e.g. an antibody) directed against the whole 411 amino acid residue uPA would not enable the determination of the “total urokinase concentration”.

Claims 1-17 and 19-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims lack enablement for “determining total urokinase concentration in a sample”.

It has been noted supra that by introducing a de facto Markush group at lines 3-9 of claim 1 applicant has changed (broadened) the scope of the invention. Specifically, claim 1, line 3 now introduces a Markush group of 3 peptides (set forth at lines 4, 6, and 8), as well as of any combination thereof (line 10). Since applicant has introduced the word "or" at line 9, the claim is properly read as a Markush Group, from which any one of the three peptides can be selected alone, or from which any combination can be selected. The "immunological composition" of line 11 could thus be directed against any one of these possibilities. The claims encompass the use of only one of the 3 peptides and thus only one "immunological composition" directed there against. Applicant's disclosure has clearly indicated that the use of only one immunological composition, such as an antibody directed against the N-terminal 135 amino acid residues of uPA, would not enable the determination of the "total urokinase concentration". As another example, dependent claim 6 could be properly read as encompassing a method in which the only "immunological composition" used is one directed against a peptide corresponding to SEQ ID NO: 14, "which includes amino acid residues 158-159". Applicant's disclosure has taught that an immunological composition directed against amino acid residues 158-159 will only bind to the inactive zymogen form of urokinase (e.g. see para. [0034 and [0044]). In such case only the inactive zymogen form of urokinase, not the "total urokinase" will be determined. Like considerations apply to claims 13 and 14.

Further, even if the above analysis of non-enablement were in error, it is to be noted, for claims 11-13 and 21, everything recited after "comprised of the following steps" (e.g. line 4 of claim 11) is presently recited as a Markush group of 3 alternatives, because applicant has introduced "or" (e.g. at the end of line 20 of claim 11). Applicant's claimed method thus previously required that one conduct all 3 steps, not just any 1 of them. Again, if one were to select the 3rd member of the Markush group, one would be determining only the inactive zymogen form of urokinase, rather than "total urokinase".

Applicant's original disclosure was so vague as to how one is to specifically use the 3 determined amounts (e.g. from each of the determining steps of claims 11-13 and 21) that the examiner cannot even hazard a guess as to how the amended claims

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should be corrected, so that embodiments that are not enabled for "determining total urokinase concentration in a sample" are excluded.

NEW REJECTION(S) UNDER 35 USC 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 9, 11-14 and 20-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morrison (5,869,238, of record).

Morrison teaches immunoassays for uPA, such as sandwich assays and cytological assays (col. 5, lines 30+). Morrison teaches that among the antibodies to be used are those that are formed against isolated low molecular weight (33 kDA) uPA (LMW-uPA); see col. 5, lines 6+. This LMW-uPA corresponds to the instant low molecular weight enzyme, which has amino acid residues 1-135; see instant spec. para. [0010]. An antibody formed/directed against isolated LMW-uPA thus is the same as an

antibody directed against the instant "first peptide" corresponding to a sequence in SEQ ID NO: 16 between amino acid residues 1 and 135".

It has been noted supra, under 112 issues, that the listing of peptides set forth in any of claims 1, 5, 9, 13-14 and 20-21 reads as a Markush group, such that the instantly claimed method or kit need only use or provide an antibody to one of the 3 listed peptides. Further, it has been noted supra under 112 issues that "determining the quantity of each of said at least one immunological composition..." does not relate how each of the determinations is used for "determining total urokinase concentration". Therefore, the determination of uPA that uses only an antibody directed against the "first peptide" corresponding to a sequence in SEQ ID NO: 16 between amino acid residues 1 and 135", as taught by Morrison, anticipates.

Anticipation is stated on the basis that immunoassays for uPA and antibodies to LMW-uPA are taught within the four corners of the reference. Obviousness is stated on the basis that, even though immunoassays for uPA and antibodies to LMW-uPA are taught within the same sentence, it would have been obvious to have used the taught antibody directed against LMW-uPA in the immunoassays.

Kit claims 14 and 20-21 are rejected under obviousness since the provision of immunological compositions in kit form was art conventional.

FINALITY

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

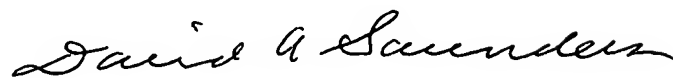
CONTACTS

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Saunders, whose telephone number is 571-272-0849. The examiner can normally be reached on Mon.-Thu. from 8:00 am to 5:30 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan, can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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